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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,167	02/09/2004	Tatsuya Fukunaga	118528	6776
25944	7590	03/30/2005	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			HAM, SEUNGSOOK	
			ART UNIT	PAPER NUMBER

2817

DATE MAILED: 03/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/773,167

Applicant(s)

FUKUNAGA, TATSUYA

Examiner

Seungsook Ham

Art Unit

2817

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/30/04, 2/9/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

Figures 11-13 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 5 and 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Williams (US Pat. '555).

Williams (figs. 2a, 2b) discloses a filter including at least three resonators 1, 2, 3, each comprising a waveguide having electromagnetic wave propagation region surrounded by conductors (i.e., conductive housing), wherein the resonators are arranged so that an electromagnetic wave enters through an input end 9 into one of the resonators 1 and exits through an output end 10 from another resonator 3; the

Art Unit: 2817

resonators are arranged so that a plurality of propagation paths M_{13} , M_{12} , M_{23} are formed between the input end and the output end; each of the resonators has two conductive layers (top and bottom conductive housing) facing each other and sidewalls formed between the two conductive layers; and the sidewalls of resonators have branched structures (the partial wall 7 and the sidewall where coupling hole 5 is located); a plurality of resonators are coupled at the branched parts 4, 5, 8; and the sidewalls of the resonators are formed by a continuous sidewalls (see fig. 2a, the sidewalls of the housing 1-3).

The method claim 10 is inherent from the device of Williams since the claimed invention is the same.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Williams (US Pat. '555) in view of Maruhashi et al. (JP 2002-026611).

Williams does not show the sidewalls of the resonators are formed by through holes. However, such through holes are well known in the art. Maruhashi et al. (fig. 1) discloses a waveguide filter having sidewalls are formed by through holes between the conductive layers. It would have been obvious to one of ordinary skill in the art use through holes to form the sidewalls in the device of Williams since such design

technique is well known in the art and also provide a small-size waveguide filter as taught by Maruhashi et al. (see abstract).

Claims 3, 4, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams (US Pat. '555) in view of Hershtig (US '490) or Kasuga et al. (US '448).

Williams does not show the resonators are arranged in a "Y" shape.

Hershtig (fig. 1) discloses a filter having three waveguide cavities disposed in a "Y" shape. Kasuga et al. (fig. 1A) also shows three resonators are disposed in "Y" shape.

It would have been obvious to one of ordinary skill in the art to design the filter in a "Y" shape in the device of Williams as an alternative way to design the filter since both shapes provide an attenuation poles as taught by Hershtig (see abstract) or Kasuga et al. (see abstract).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kudo et al. and Uchimura disclose a waveguide filter having a plurality of metalized through holes;

Takahashi et al. (fig. 1) discloses a waveguide structure having a continuous wall in a dielectric substrate; and

Rosenberg et al. and Peters disclose a filter having a multi-propagation paths.

Art Unit: 2817

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seungsook Ham whose telephone number is (571) 272-2405. The examiner can normally be reached on Monday-Thursday, 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (571)-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Seungsook Ham
Primary Examiner
Art Unit 2817

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